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Milano, August 31° 2015

## International Conference

# Prevention and control of *Campylobacter* in the poultry production system

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# *Why are we here today?*

A year ago in Venice the Heads of Food Safety Agencies decided to organize a moment of discussion on the topics related to Campylobacter

It is time to act effectively in the primary production chain: this is achievable through an open exchange among competent authorities, experts and farmers.

We would like to reach a real synergy among all stakeholders:

**We could do the biosecurity plan “together” and find good criteria to assess effectiveness.**



# *Campylobacteriosis in Europe (2013)*

- Over 200,000 human cases
- Incidence: 64.8 cases/100,000 inhabitants
- Mortality rate: 0.05%
- Estimated incidence: 9 million cases/year
- Estimated costs: 2.4 billion €



# *Human sources of Campylobacteriosis*



**Consumption of undercooked poultry meat**



**Cross-contamination**



**Direct contact with alive poultry**



**Untreated water consumption**



**Raw milk consumption**



**Contact with pets**

Handling, preparation and consumption of poultry meat may account for 20-30% of human campylobacteriosis

50-80% of human cases may be attributed to the chicken reservoir as a whole



# *EU baseline survey on Campylobacter in broiler batches and carcasses (2008)*

*(Commission Decision 2007/516/EC)*

A total of 10,132 broiler batches were sampled from 561 slaughterhouses in 26 EU MS (+ Norway and Switzerland)

*Campylobacter* was detected in pooled caecal contents of broilers and on broiler carcasses in all participating countries.

In the EU countries the prevalence of *Campylobacter*-colonised broiler batches was 71.2% and that of *Campylobacter*-contaminated broiler carcasses was 75.8%.

Prevalence in the EU Member States varied from 2.0% to 100.0% and from 4.9% to 100.0%, for caecal contents and carcasses, respectively.



# *EU baseline survey on Campylobacter in broiler batches and carcasses (2008): focus on Italy*

- 393 broiler batches were sampled from 118 slaughterhouses
- Caecal contents and broiler carcasses resulted contaminated in 63.3% and 49.6% batches respectively
- Average contamination level: 2.72 logCFU/g



# Antimicrobial Resistance (AMR)

AMR represents a European and global problem and involves many sectors

- Transmission through food of animal origin of resistant bacteria or resistant genes;

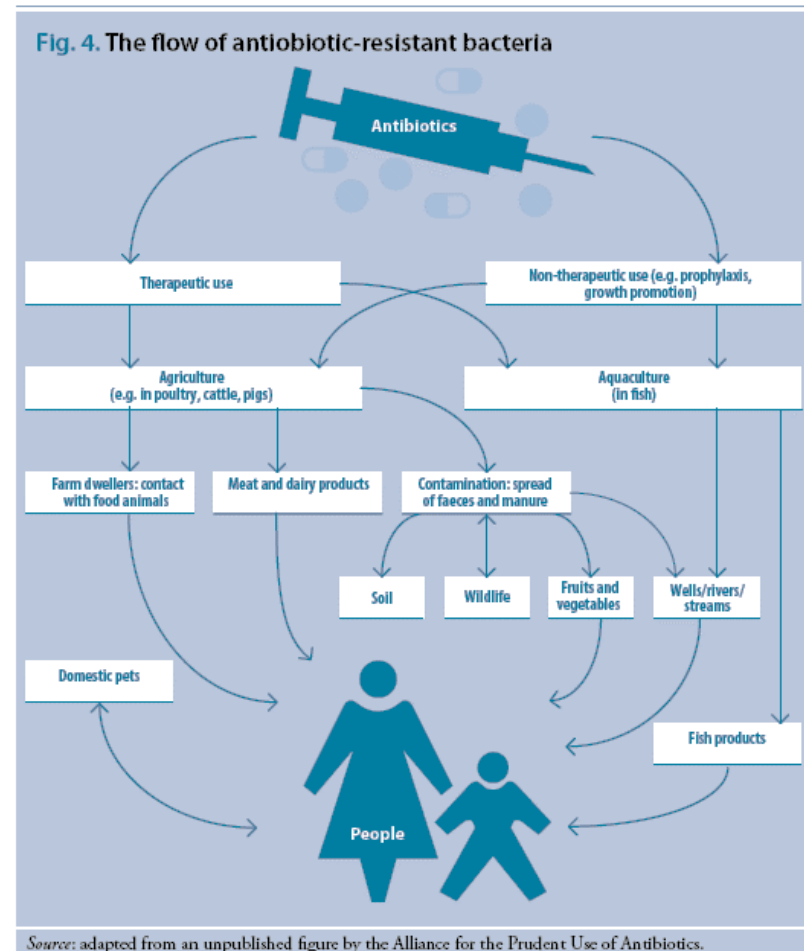
Direct contact with animals, the animal environment or food during processing;

Food or vegetables contaminated by animal waste or contaminated water.



«One Health»

International coordination



# AMR Trend

*EU Summary Report on antimicrobial resistance in zoonotic and indicator bacteria from humans, animals and food in 2013*

Increased resistance of bacteria to the most common antimicrobial agents, both in human and in animals

Multi-resistance phenomenon is high

(31,8% in humans, 56% in broilers , 73,% in turkeys , 37,9% in fattening pigs).

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*The European Union summary Report on trends and sources of zoonoses, zoonotic agents and food-borne outbreaks in 2013 EFSA/ECDC*

## *Campylobacter*

Constant trend in the last five years in poultry meat and poultry product

(Ciprofloxacin)





# *Campylobacter* and primary production

The control of *Campylobacter* in the primary production of poultry meat has a greater impact on public health than measures that can be applied in the later stages of production.

In particular, the biosecurity measures applied in primary production would seem the most important in preventing the introduction and spread of *Campylobacter* in breeding.



# *Campylobacter and primary production*

Severe biosecurity measures at farm, could reduce from 40% to 70% of prevalence, proving the most advantageous measure from the cost- benefit point of view

These improved measures in the EU would cost 37-54 million €, but costs for human health care would be reduced of 166-334 million €

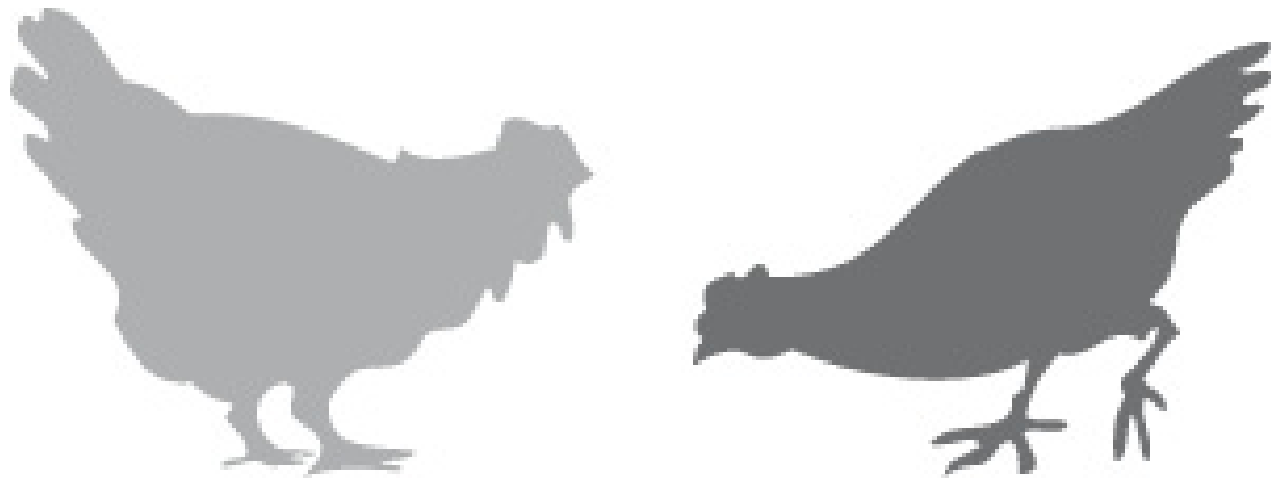
(Elliott et al., 2012)



# *Target actions*

1. In breeding – Primary production
2. During transport
3. At slaughterhouse
4. Consumers information and communication campaigns





*I wish all participants a fruitful day  
Thank you*